

7. Precipitation sensor as claimed in claim 1 wherein said supporting means include a supporting housing in which said bucket means is located; wherein said bucket means includes a horizontal shaft mounting said first and second buckets on said supporting housing for angular tilting movement about an axis between said first and second positions; and wherein said collecting and distributing means is mounted on said housing in a vertical plane passing through said axis of said shaft.

8. Precipitation sensor as claimed in claim 7 wherein said shaft is fixedly secured to said bucket means and turnably mounted on said housing; wherein at least one end of said shaft projects out of said housing; and wherein said shielding plate is secured to said shaft end.

9. Precipitation sensor as claimed in claim 8 wherein said magnetic switch means are located in said vertical plane, said permanent magnet means being fixedly supported by said housing in said vertical plane.

10. Precipitation sensor as claimed in claim 1 wherein said magnetic switch means include two adjacent parallel reed switches simultaneously operated by said permanent magnet means and connected in parallel whereby a counting pulse is generated even if one of said switches fails.

11. Precipitation sensor comprising a housing; precipitation collecting and distributing means mounted on said housing and having an inlet and an outlet for precipitation and including a normally closed check valve in said outlet so that precipitation is collected while said valve is closed and discharged when the same is opened; bucket means including first and second buckets secured to each other and a horizontal shaft mounting said buckets on said housing for angular tilting movement about the shaft axis between a first position in which an inlet portion of said first bucket is located under said outlet for accumulating precipita-

tion while said second bucket discharges accumulated precipitation and a second position in which an inlet portion of said second bucket is located under said outlet for accumulating precipitation while said first bucket discharges accumulated precipitation, said collecting and distributing means being located substantially in a vertical plane passing through said shaft axis; valve actuating means comprising a first actuator secured to said first bucket and engaging and opening said valve in said first position of said bucket means, and a second actuator secured to said second bucket and engaging and opening said valve in said second position of said bucket means, said valve being located between said actuators during tilting of said bucket means and closed during such tilting movement; and counting means operated by said bucket means during each tilting movement and comprising magnetic switch means located in said vertical plane, permanent magnet means fixedly supported by said housing in said vertical plane, and a non-magnetizable shielding plate secured to said shaft for angular movement therewith and having a cutout registering with said magnetic switch means and said permanent magnet means in said vertical plane during tilting movement of said bucket means, whereby flux flowing from said permanent magnet means through said cutout in said plate energizes said magnetic switch means to generate an electric counting pulse.

12. Precipitation sensor as defined in claim 11, wherein said bucket means include first and second evaporation retardation covers on top of the first and second buckets, respectively, said first and second covers having first and second inlet cutouts respectively forming said inlet portions and being respectively located under said outlet means when said bucket means are in said first and second positions.

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